

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2015-362-E - ORDER NO. 2021-34  
JANUARY 15, 2021

IN RE: Joint Application of Duke Energy Carolinas, LLC, Duke Energy Progress, LLC and Dominion Energy South Carolina, Incorporated (f/k/a South Carolina Electric & Gas Company) for Approval of the Revised South Carolina Interconnection Standard (See also Docket No. 2017-36-E)	)	ORDER APPROVING
	)	WAIVERS TO CERTAIN
	)	GENERATOR
	)	INTERCONNECTION
	)	PROCEDURES
	)	

**INTRODUCTION**

This matter comes before the Public Service Commission of South Carolina (“Commission”) by way of Duke Energy Carolinas, LLC (“DEC”), Duke Energy Progress, LLC (“DEP” and together with DEC, “Duke” or the “Companies”), Birdseye Renewable Energy, LLC (“Birdseye”), Cypress Creek Renewables, LLC (“CCR”), Pine Gate Renewables, LLC (“Pine Gate”), Southern Current LLC (“Southern Current”), National Renewable Energy Corporation (“NARENCO”), DEPCOM Power, Inc. (“DEPCOM”), and Ecoplexus Inc (“Ecoplexus”) (collectively the “Settling Developers”) (together with Duke, the “Joint Petitioners”) providing notice of settlement and requesting approval of three limited waivers from the South Carolina Generator Interconnection Procedures (“SC GIP”) to implement the settlement. The Settling Developers are developers of solar photovoltaic generating facilities in South Carolina. The Settling Developers’ Interconnection Requests, submitted pursuant to the South Carolina Generator

Interconnection Procedures, are subject to the jurisdiction of the Commission.<sup>1</sup> Of the Settling Developers, only Southern Current is a party in this docket. Carolina Solar Energy LLC, Strata Solar, LLC, and Strata Solar Development, LLC are also parties to the settlement. However, those companies do not have any solar projects in South Carolina that would be subject to the settlement. According to the Joint Petitioners, should another solar developer later petition to intervene in this docket for purposes of seeking the Commission's assistance in enforcing the provisions of the Settlement Agreement, neither the Companies, nor Southern Current will object to such intervention.

In addition to the waiver requests, Joint Petitioners maintain that certain portions of the Settlement Agreement are commercially sensitive and proprietary and request the Commission conclude that pursuant to S.C. Code Ann. Regs. 103-804(S)(2) and S.C. Code Ann. § 30-4-40(a)(1), certain attachments to the Settlement Agreement are exempt from disclosure under the Freedom of Information Act, S.C. Code Ann. §§ 30-4-10 et seq. Joint Petitioners maintain the information contained in the attachments for which they seek protection constitutes trade secrets, and confidential, proprietary, and commercially sensitive information about the Settling Developers' interconnection requests and planned solar generating facilities. Accordingly, the Joint Petitioners request the confidential version of the Settlement Agreement be filed under seal and maintained as confidential pursuant to Order No. 2005-226 (filings that are intended to be confidential must be designated as confidential by the party intending such designation).

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<sup>1</sup> Generator Interconnection Procedure 1.1.1.

### **OVERVIEW**

On September 4, 2020, a Joint Notice and Petition was filed on behalf of the Joint Petitioners requesting approval of a limited waiver of certain provisions of the South Carolina Generator Interconnection Procedures (“SC GIP”) to allow the Joint Petitioners to implement the Interconnection Settlement Agreement (“Settlement Agreement”) described in the Joint Notice and Petition. Specifically, Joint Petitioners are requesting limited waiver of the Interdependency Construct approved by Commission Order No. 2016-191, as it relates to:

- Section 1.3.2, which requires the establishment of Queue Position based on the date and time stamp applied to the Interconnection Request;
- Section 1.4, which governs how modifications to the Interconnection Request are processed; and
- Section 1.6, which assigns a Queue Number based on Queue Position, determines cost responsibility, and requires the Queue Number to be maintained throughout the review process.

The Office of Regulatory Staff (“ORS”) has reviewed this matter and does not object to the request of the Joint Petitioners; however, ORS provides the following limited comments related to the Joint Notice and Petition.

- The Companies shall take adequate measures to ensure the Interconnection Requests of non-settling developers are not negatively impacted by the requested waivers or by the Joint Petitioners’ implementation of the Settlement Agreement.

- All non-settling developers' Interconnection Requests should be processed and studied according to the timelines required by the SC GIP and should not be delayed or disadvantaged in any way by the concurrent processing of Interconnection Requests of the Settling Developers.
- The Companies' South Carolina customers should not be allocated any costs incurred by the Joint Petitioners to facilitate, finalize or implement the Settlement Agreement.
- Finally, to the extent the Commission approves the limited waivers as requested by the Joint Petitioners, and the Settling Developers voluntarily participate in the implementation of the Settlement Agreement, ORS's role to facilitate informal resolution of disputes will be limited to only those provisions in the SC GIP for which no waiver was granted. ORS does not have jurisdiction to facilitate informal resolution over disputes arising from the Companies' implementation of the provisions outlined in the Settlement Agreement.

Joint Petitioners state that the Settlement Agreement resolves approximately fifty outstanding disputes; avoids potential additional complaints; provides for the interconnection of a significant subset of the Settling Developers' Interconnection Requests within a defined time frame, despite current transmission constraints; and provides for an efficient and equitable transition to a revised study process for evaluating interconnection requests in the Carolinas. The parties also state that the Settlement Agreement provides these benefits at no incremental cost to non-settling parties, and it will

not result in any additional costs being imposed on the Companies' retail or wholesale customers.

Joint Petitioners also maintain that the Settlement Agreement will reduce the volume of older pending distribution Interconnection Requests and therefore clear the way for reforms to the interconnection process that Duke plans to propose to the Commission for approval later this year. The Settlement Agreement aims to (1) resolve long-standing disputes regarding the Companies' invoicing of interconnection cost estimates to Interconnection Customers substantially in excess of the costs estimated in their Interconnection Agreements. (Settlement Agreement Section 1.), (2) resolve pending distribution-connected solar Interconnection Requests by facilitating a certain number of additional interconnections according to defined timelines and with the benefit of prospective capping of interconnection costs. (Settlement Agreement Sections 2-6.), and (3) provide a more efficient process to study Interconnection Requests through Queue Reform that will allow groups of Interconnection Requests to be studied together in periodic "clusters" to identify impacts to the transmission grid, rather than separately under the current serial study process.

### **FACTS**

In 2014, Act 236 encouraged the development of numerous proposed solar projects seeking interconnection to Duke's distribution systems in South Carolina. Since Act 236 limited the size of utility-scale solar development under the distributed energy resource plan to 10 MW and under, the number of distribution-connected Interconnection Requests in South Carolina grew tremendously in 2014 and 2015. This

influx caused challenges in processing and interconnecting substantial amounts utility-scale solar generating facilities to the Companies' distribution system under the serial interconnection process mandated by the SC GIP.<sup>2</sup>

**A. Interdependency Problems in the Interconnection Queue:**

Currently, there are approximately 1,089 MW of distribution connected, utility-scale solar Interconnection Requests pending in the interconnection queue. Of this amount, Duke has determined that 731 MW are “transmission constrained,” meaning a transmission-level interdependency has been identified and the required Network Upgrades have been assigned to an earlier-queued Interconnection Customer. In more general terms, one of the biggest challenges in reforming interconnection is processing older distribution interconnection requests in a fair and equitable manner that respects the position of projects that have been pending in the interconnection queue for long periods of time due to the requirements of the serial study process. Those projects are requesting to interconnect in areas of the Companies' transmission grid that are already saturated with a significant amount of interconnected solar facilities. The Joint Petitioners maintain that without the Settlement Agreement, such projects generally cannot interconnect without substantial and costly improvements to the grid, and probably do not have a financially viable path to interconnection. Therefore, it is likely that such projects will be forced to sit idly in the interconnection queue for years until earlier-queued Interconnection Customers commit to funding substantial transmission upgrades that are creating constraints on the system.

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<sup>2</sup> Generator Interconnection Procedure 1.3.2.

To resolve this problem, Duke states that it plans to propose Queue Reform later in the year that will allow groups of Interconnection Requests to be studied together in periodic “clusters” to identify impacts to the transmission grid, rather than separately under the current serial study process.

The Joint Petitioners maintain that the Settlement Agreement mitigates these challenges and supports the transition to Queue Reform through the Companies’ agreement to: (1) process and interconnect certain distribution-connected, utility-scale Interconnection Requests that are not transmission constrained under the existing serial study process, prior to the implementation of Queue Reform and (2) provide a pathway to interconnection for a limited number of transmission-constrained, distribution-connected solar projects.

**B. Request for Waivers of Three Generator Interconnection Procedures:**

To help resolve these problems, Joint Petitioners are seeking limited waivers to the Generator Interconnection Procedures regarding (1) the Interdependency Construct, (2) requirements for Queue Position, and (3) Material Modification Indicia: Downsizing Greater than 10%.

1. Limited Waiver of Interdependency Construct (Section 5(a) of the Settlement).

Joint Petitioners state that they have worked collaboratively to identify a creative solution to facilitate more interconnection of certain pending distribution Interconnection Requests in areas of significant transmission constraints, while limiting such interconnection and putting in place protocols to ensure the safe and reliable operation of

the transmission system. This solution, however, partially bypasses the Interdependency Construct and therefore requires a limited waiver of the SC GIP.

The Interdependency provisions of the SC GIP are specified in Attachment A to the Memorandum of Understanding between Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; the South Carolina Office of Regulatory Staff and South Carolina Solar Business Alliance, as approved by the Commission in Order No. 2016-191 in Docket No. 2015-362-E (“Interdependency MOU”).

Under the current serial study approach required by the SC GIP, projects are studied and assigned Upgrades (where necessary) based on the order in which they enter the interconnection queue, with earlier-queued projects studied and, where necessary, assigned Upgrades, prior to later-queued projects. If an earlier-queued project is assigned an Upgrade on which a later-queued project would be dependent, such later-queued project is deemed “Interdependent” to such earlier-queued project.<sup>3</sup> The later-queued Interdependent Project is not permitted to move forward to interconnect until the earlier queued project has irrevocably committed to pay for its assigned Upgrades, and, as a result, there is uncertainty that such Upgrades will be constructed if they are needed for later-queued projects.<sup>4</sup>

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<sup>3</sup> The Interdependency MOU defines an “Interdependent Customer” (or Interdependent Project) as “an Interconnection Customer (or Project) whose Upgrade or Interconnection Facilities requirements are impacted by another Generating Facility, as determined by the Utility.”

<sup>4</sup> As described by Joint Petitioners, a simple example of Interdependency is where an earlier-queued project is determined to require an Upgrade of a distribution circuit. This project is known as Project A. A later-queued project on the same circuit, known as Project B, will not proceed to interconnect until it is determined whether Project A has elected whether to proceed to interconnect and therefore fund the Upgrade of the distribution circuit or instead, has elected to withdraw. If Project A elects to proceed and has irrevocably paid for the Upgrade to the distribution circuit, Project B may proceed and interconnect relying on such



This problem is exacerbated by the fact that a large number of utility-scale solar projects are already interconnected in South and North Carolina and have consumed substantial portions of the available transmission and distribution capacity in certain areas of the states. As a result, Duke states that substantial Upgrades are needed to accommodate further generator interconnections in some areas, including substantial transmission Upgrades that can cost solar developers tens or, in some cases, hundreds of millions of dollars.

Section 5(a) of the Settlement Agreement would allow a limited number of such transmission-constrained distribution projects to interconnect prior to the construction of necessary transmission Upgrades. Under a set of operating protocols that have been identified by Duke, a limited number of distribution-connected solar projects can move forward and still ensure the continued reliability and safety of the transmission system without construction of the transmission Upgrades in question. These operating protocols will allow Duke to curtail the output of such distribution projects as needed in order to ensure compliance with all applicable NERC standards. Specifically, the curtailment right under the Settlement Agreement is intended to ensure Duke's ability to comply with NERC Reliability Standard TOP-001. As part of the Settlement Agreement, the Companies agreed to cap the amount of uncompensated curtailment that is implemented to ensure compliance with NERC Reliability Standard TOP-001. Duke states

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distribution circuit Upgrade. But if Project A ultimately elects to withdraw and not pay for the distribution circuit Upgrade, Project B will be assigned the required Upgrade and must either pay for such Upgrade or withdraw. *See* Interdependency MOU Paragraph 5(a).

it is confident that the amount of uncompensated curtailment allowable under the Settlement Agreement will be sufficient to maintain compliance with this standard.

2. Limited Waiver of Queue Position (Section 3(c)(i) of the Settlement Agreement).

Sections 1.3.2 and 1.6 of the SC GIP set forth how an Interconnection Request's Queue Position is determined and require the Utility to process Interconnection Requests according to their respective Queue Positions. In a narrow set of circumstances, the Settlement Agreement would allow certain projects owned or represented by Settling Developers to move ahead of other prior-queued projects owned by Settling Developers on the same substation, if it does not adversely affect any other Interconnection Customer that is not party to the Settlement Agreement.

This limited exception to the Queue Position priority order is designed solely to allow the Settling Developers more flexibility to identify and facilitate the interconnection of the distributed generation projects most likely to be technically and economically viable on a given substation or distribution circuit.

3. Limited Waiver to Material Modification Indicia: Downsizing Greater than 10% (Section 2(b)(ii)(2) of the Settlement Agreement).

Section 1.4 of the SC GIP, together with the definition of Material Modification in the SC GIP's Glossary of Terms, specify that a reduction in AC output by more than 10% is an indicium of a Material Modification, which would require such Interconnection Request to be withdrawn. However, the Settlement Agreement allows for certain Interconnection Customers to reduce the size of their proposed Generating Facility by more than 10% (although it does not provide for, and the Joint Petitioners are not requesting, a

waiver of Section 1.4 as it relates to Material Modification resulting from an increase in the Maximum Generating Capacity of the proposed Generating Facility).

### **FINDINGS OF FACT**

The facts as described in the body of this order provide a full description of the issues presented by Joint Petitioners and are incorporated into these findings of fact. Additionally, the Commission finds that:

1. The Duke Companies are taking adequate measures to ensure that the Interconnection Requests of non-settling developer are not negatively impacted by the requested waivers or by the Joint Petitioner's implementation of the Settlement Agreement.

2. All non-settling developers' Interconnection Requests will be processed and studied according to the timelines required by the South Carolina Generator Interconnection Procedures ("SCGIP") and will not be delayed or disadvantaged in any way by the concurrent processing of Interconnection Requests of the Settling Developers.

3. The Settlement Agreement does not discriminate against other Interconnection Customers.

4. The Duke Companies have not identified any incremental costs associated with the Settlement Agreement.

5. As provided in the Petition and in Section (j) of Part 1 and Section (e) of Part 4 of the Settlement Agreement, the Duke Companies are not seeking reimbursement or cost recovery from Duke's retail or wholesale customers for costs related to True-Up Settlement Interconnection Customers or Cost-Capped Interconnection Customers as those terms are defined in the Settlement Agreement.

6. ORS objects to the Duke Companies recovery of costs incurred to facilitate, finalize, or implement the Settlement Agreement by Dukes' South Carolina customers.

7. The Duke Companies claim that the vast majority of activities associated with implementing the Settlement Agreement are activities that are otherwise required under the SCGIP. For instance, implementing the Settlement Agreement requires the delivery of final accounting reports to particular Interconnection Customers (which is an activity already contemplated under the SCGIP even in absence of the Settlement Agreement) and the preparation and delivery of System Impact Study and Facility Study Reports and Interconnection Agreements to particular Interconnection Customers, which was already required under the SCGIP.

8. Any work required by the Duke Companies for implementation of the Settlement Agreement which would have occurred as required under the SCGIP even in absence of the Settlement Agreement shall continue to be viewed as such costs incurred in the ordinary course of administering the SCGIP; however, any party or interested person has the right to challenge the recovery of such costs and whether or not the cost was incurred in the ordinary course of administering the SCGIP.

#### **CONCLUSIONS OF LAW**

1. Duke and the South Carolina projects of the Settling Developers fall under the jurisdiction of the South Carolina Generator Interconnection Procedures ("SCGIP") contained as Exhibit 1 to Order No. 2016-191 (April 26, 2016) in Docket No. 2015-362-E.

2. It is necessary to waive SC GIP Sections 1.3.2, 1.4, and 1.6 regarding the establishment, modification, and assignment of Queue Position (respectively) in order to

mitigate the interdependency challenges described above and implement Joint Petitioner's settlement agreement to: (1) process and interconnect certain distribution-connected, utility-scale Interconnection Requests that are not transmission constrained under the existing serial study process, prior to the implementation of Queue Reform and (2) provide a pathway to interconnection for a limited number of transmission-constrained, distribution-connected solar projects.

3. The Duke Companies have not identified any incremental costs associated with the Settlement Agreement.

4. As provided in the Petition and in Section (j) of Part 1 and Section (e) of Part 4 of the Settlement Agreement, the Duke Companies are not seeking reimbursement or cost recovery from Duke's retail or wholesale customers for costs related to True-Up Settlement Interconnection Customers or Cost-Capped Interconnection Customers as those terms are defined in the Settlement Agreement.

5. Any work required by the Duke Companies for implementation of the Settlement Agreement which would have occurred as required under the SCGIP even in absence of the Settlement Agreement shall continue to be viewed as such costs incurred in the ordinary course of administering the SCGIP; however, any party or interested person has the right to challenge the recovery of such costs and whether or not the cost was incurred in the ordinary course of administering the SCGIP.

6. Waiver of the requested sections of the SC GIP supports the transition to Queue Reform.

7. Joint Petitioners maintain that the confidential version of the Settlement Agreement filed under seal contains certain trade secrets, and confidential, proprietary, and commercially sensitive information about the Settling Developers' interconnection requests and planned solar generating facilities. We conclude that this information is exempt from disclosure pursuant to S.C. Code Ann. Regs. 103-804(S)(2) and S.C. Code Ann. § 30-4-40(a)(1).

IT IS THEREFORE ORDERED:

1. It is in the public interest to waive Sections 1.3.2, 1.4, and 1.6 of the South Carolina Generator Interconnection Procedures in order to process and interconnect certain distribution-connected, utility-scale Interconnection Requests that are not transmission constrained under the existing serial study process and to provide a pathway to interconnection for a limited number of transmission-constrained, distribution-connected solar projects. Therefore, Sections 1.3.2, 1.4, and 1.6 of the South Carolina Generator Interconnection Procedures are waived to effectuate the Joint Petitioners' Settlement Agreement.

2. All non-settling developers' Interconnection Requests will be processed and studied according to the timelines required by the South Carolina Generator Interconnection Procedures ("SCGIP") and shall not be delayed or disadvantaged in any way by the concurrent processing of Interconnection Requests of the Settling Developers.

3. The Duke Companies have not identified any incremental costs associated with the Settlement Agreement.

4. As provided in the Petition and in Section (j) of Part 1 and Section (e) of Part 4 of the Settlement Agreement, the Duke Companies are not seeking reimbursement or cost recovery from Duke's retail or wholesale customers for costs related to True-Up Settlement Interconnection Customers or Cost-Capped Interconnection Customers as those terms are defined in the Settlement Agreement.

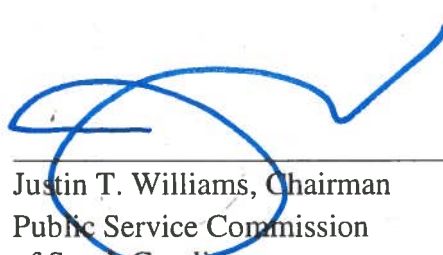
5. Any party or interested person has the right to challenge the recovery of costs by the Duke Companies from its customers for implementation of the Settlement Agreement and whether or not the cost was incurred in the ordinary course of administering the SCGIP even in absence of the Settlement Agreement.

6. The confidential version of the Settlement Agreement filed under seal will remain confidential.

7. This Order shall remain in full force and effect until further order of the Commission.

BY ORDER OF THE COMMISSION:



  
Justin T. Williams, Chairman  
Public Service Commission  
of South Carolina